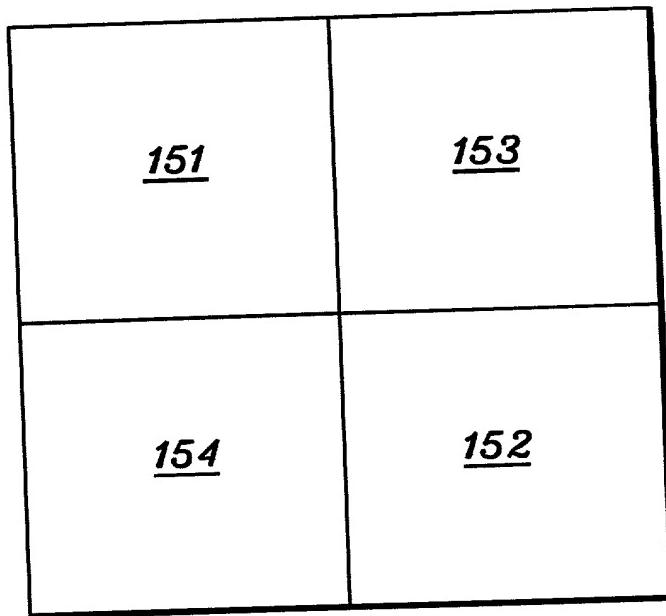


fig. 1A
(PRIOR ART)

| | | | |
|----|----|----|----|
| 7 | 6 | 5 | 16 |
| 8 | 1 | 4 | 15 |
| 9 | 2 | 3 | 14 |
| 10 | 11 | 12 | 13 |

100

fig. 1B
(PRIOR ART)



150

fig. 1C
(PRIOR ART)

| | | | | | | | |
|----|----|----|----|----|----|----|----|
| 25 | 21 | 17 | 61 | 27 | 23 | 19 | 63 |
| 29 | 1 | 13 | 57 | 31 | 3 | 15 | 59 |
| 33 | 5 | 9 | 53 | 35 | 7 | 11 | 55 |
| 37 | 41 | 45 | 49 | 39 | 43 | 47 | 51 |
| 28 | 24 | 20 | 64 | 26 | 22 | 18 | 62 |
| 32 | 4 | 16 | 60 | 30 | 2 | 14 | 58 |
| 36 | 8 | 12 | 56 | 34 | 6 | 10 | 54 |
| 40 | 44 | 48 | 52 | 38 | 42 | 46 | 50 |

150

153

152

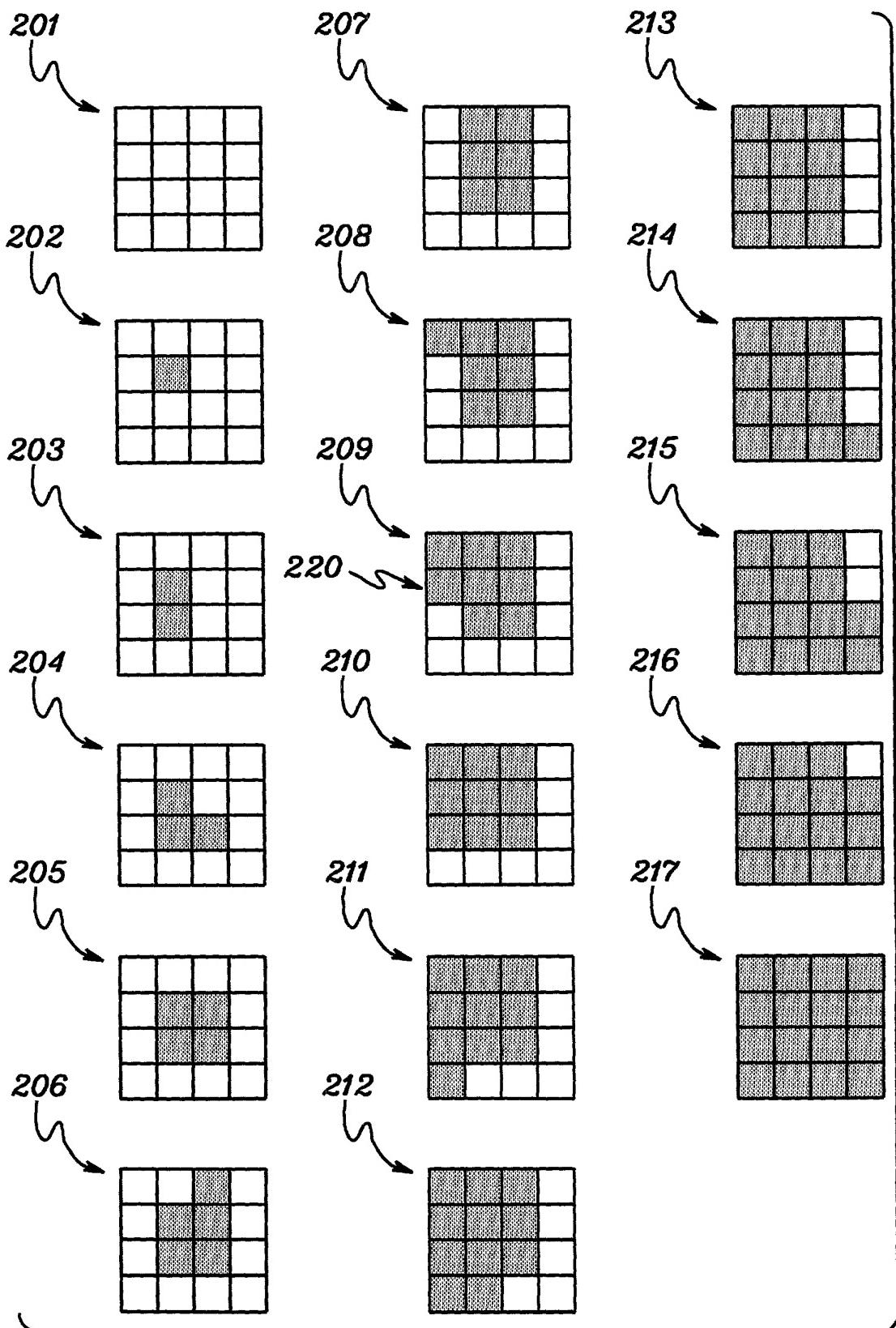


fig. 2 (PRIOR ART)

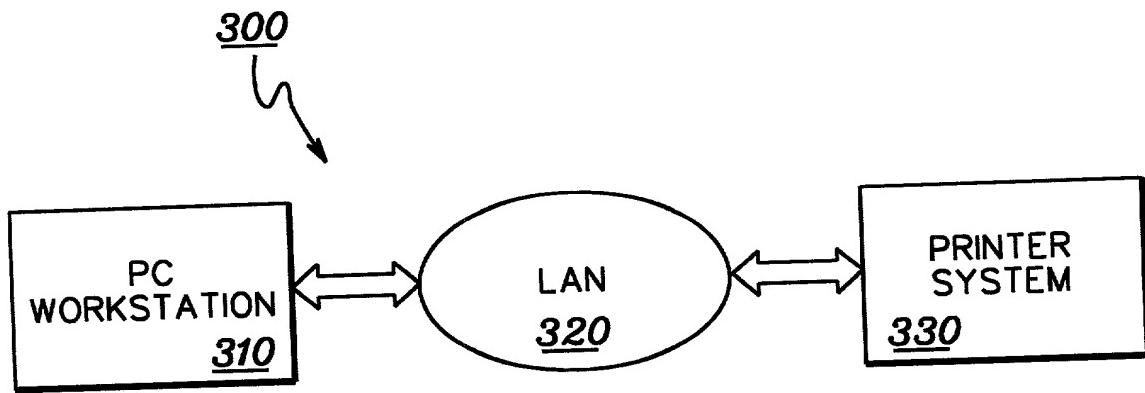


fig. 3

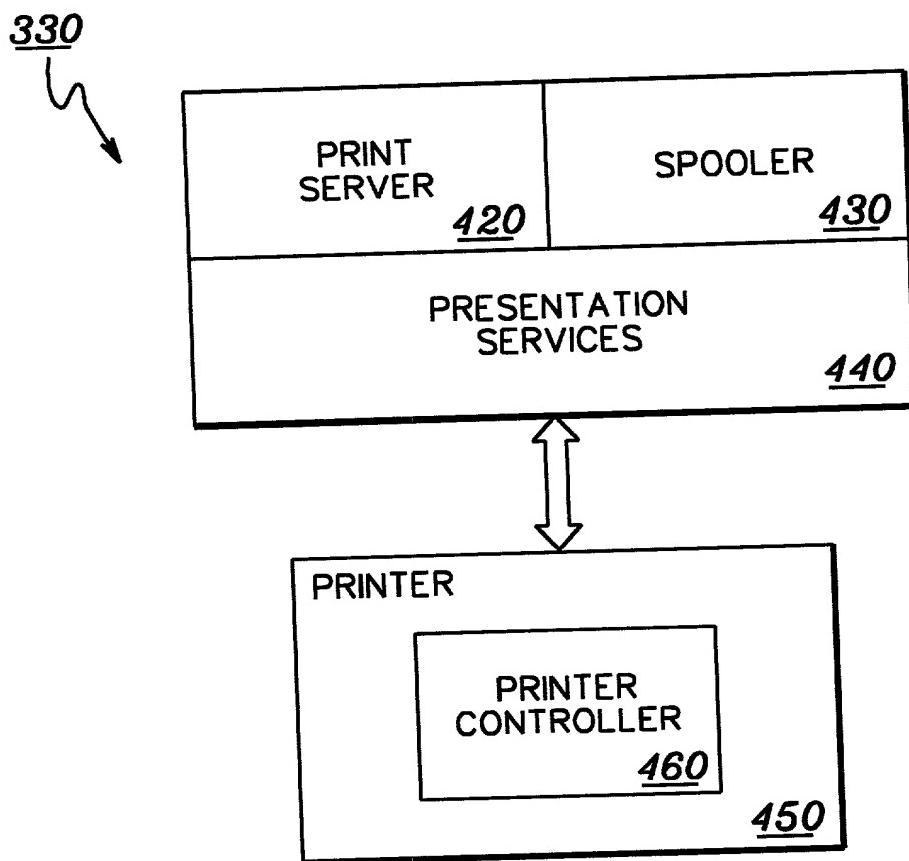


fig. 4

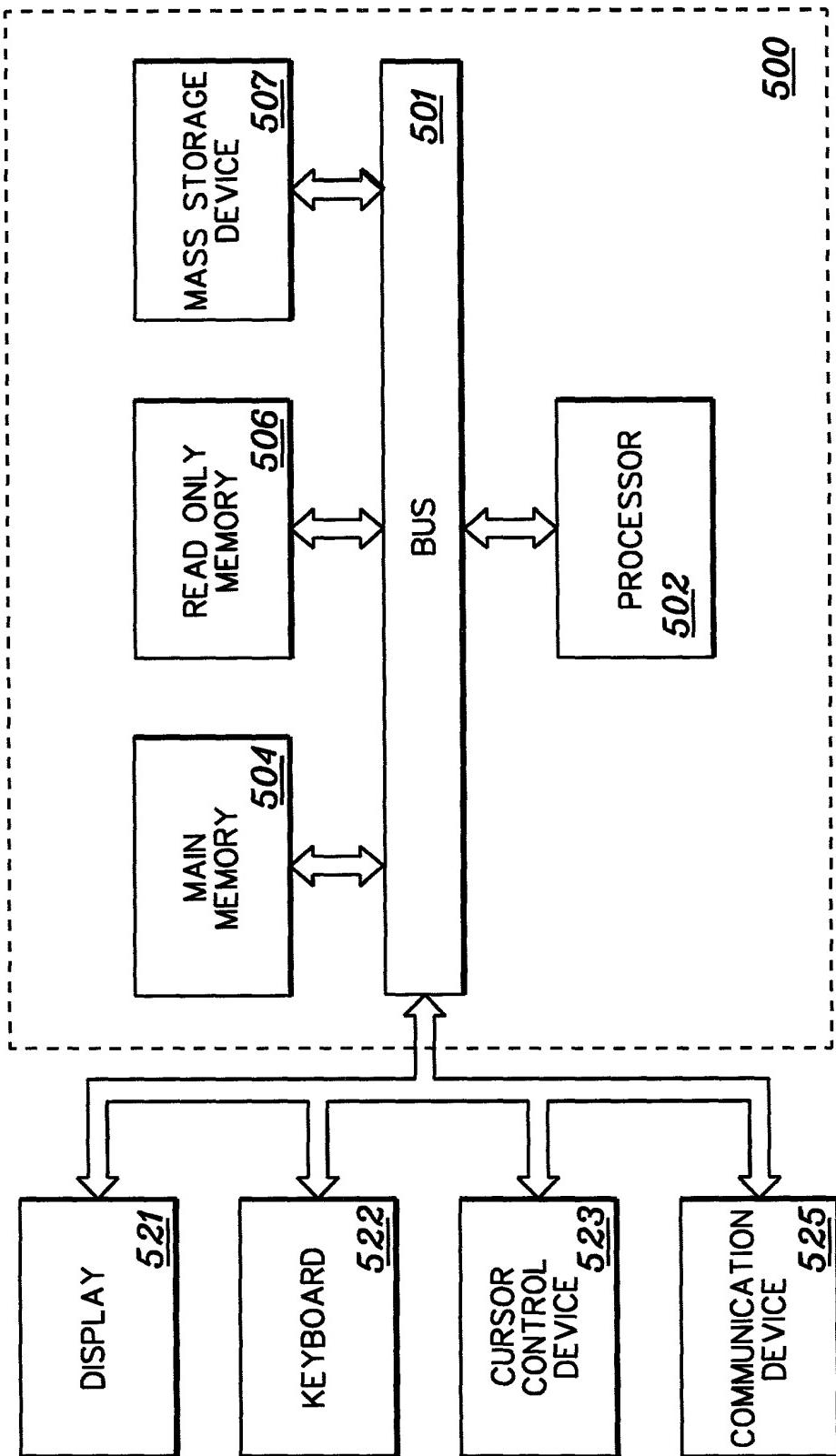


fig. 5

600

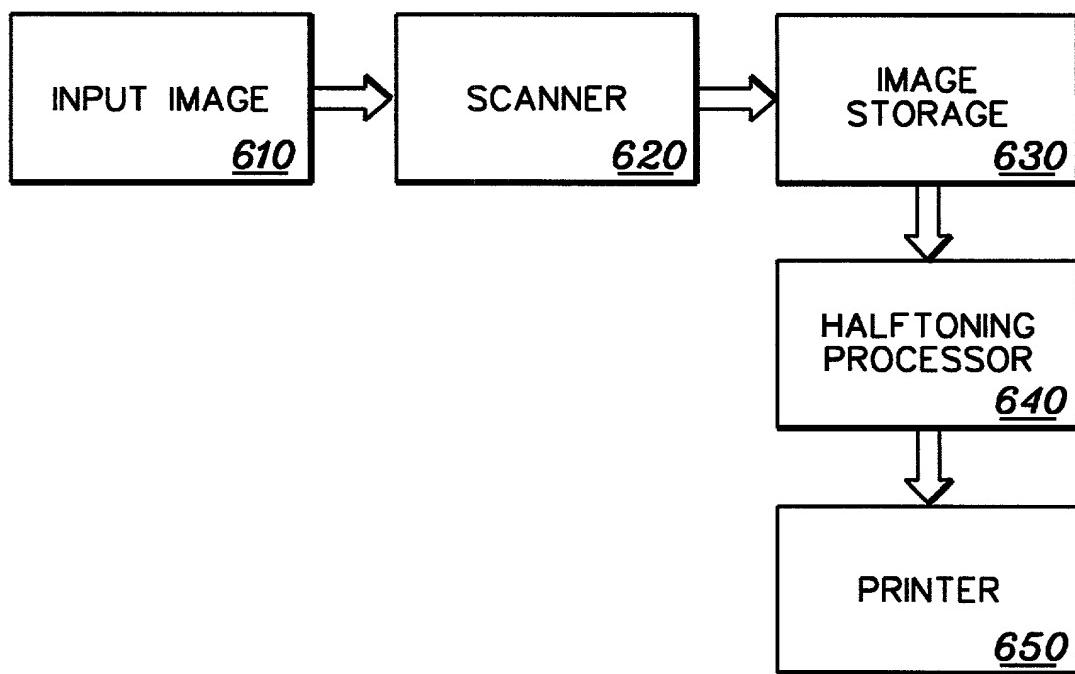


fig. 6

6/17
BLD920010002

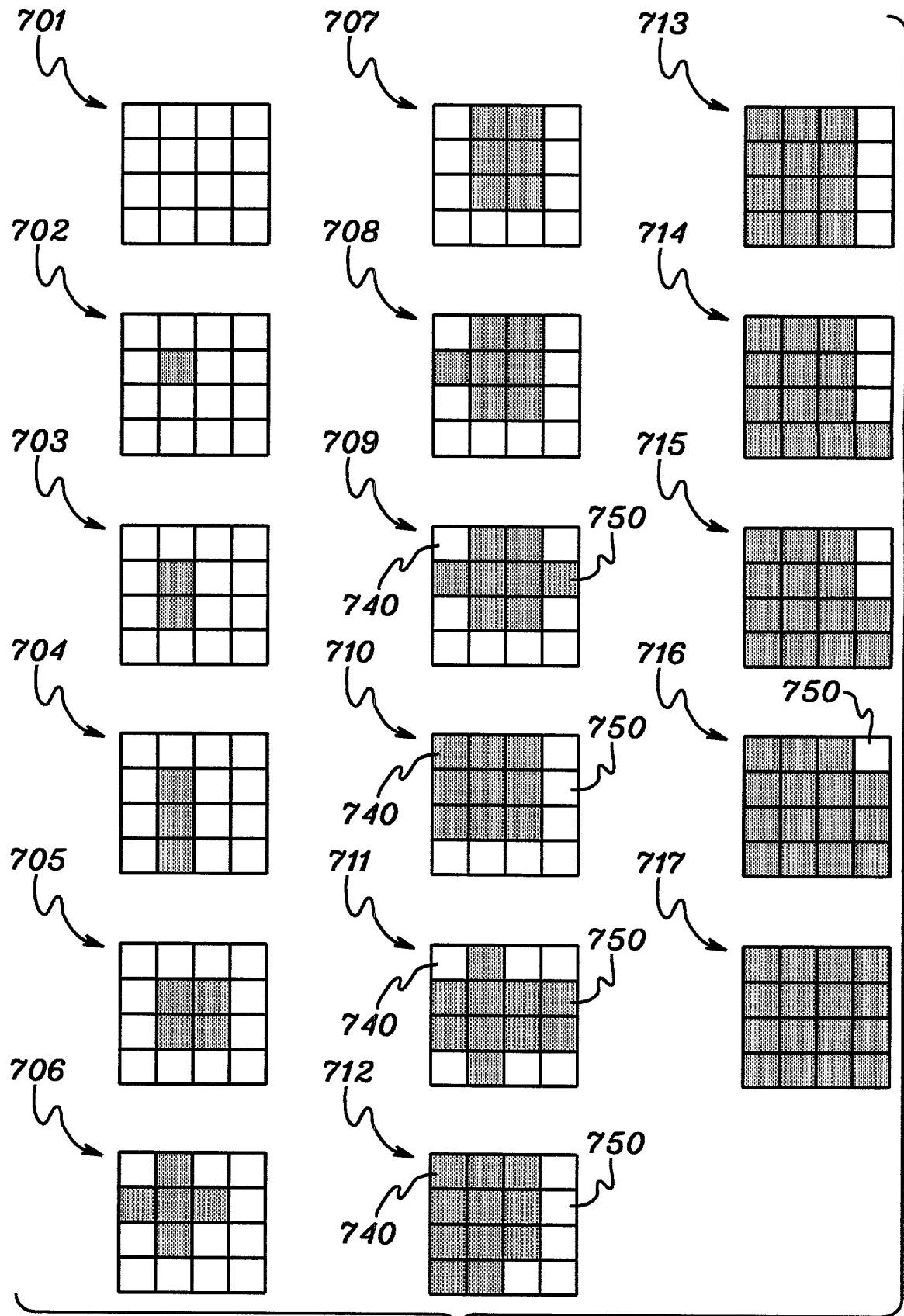
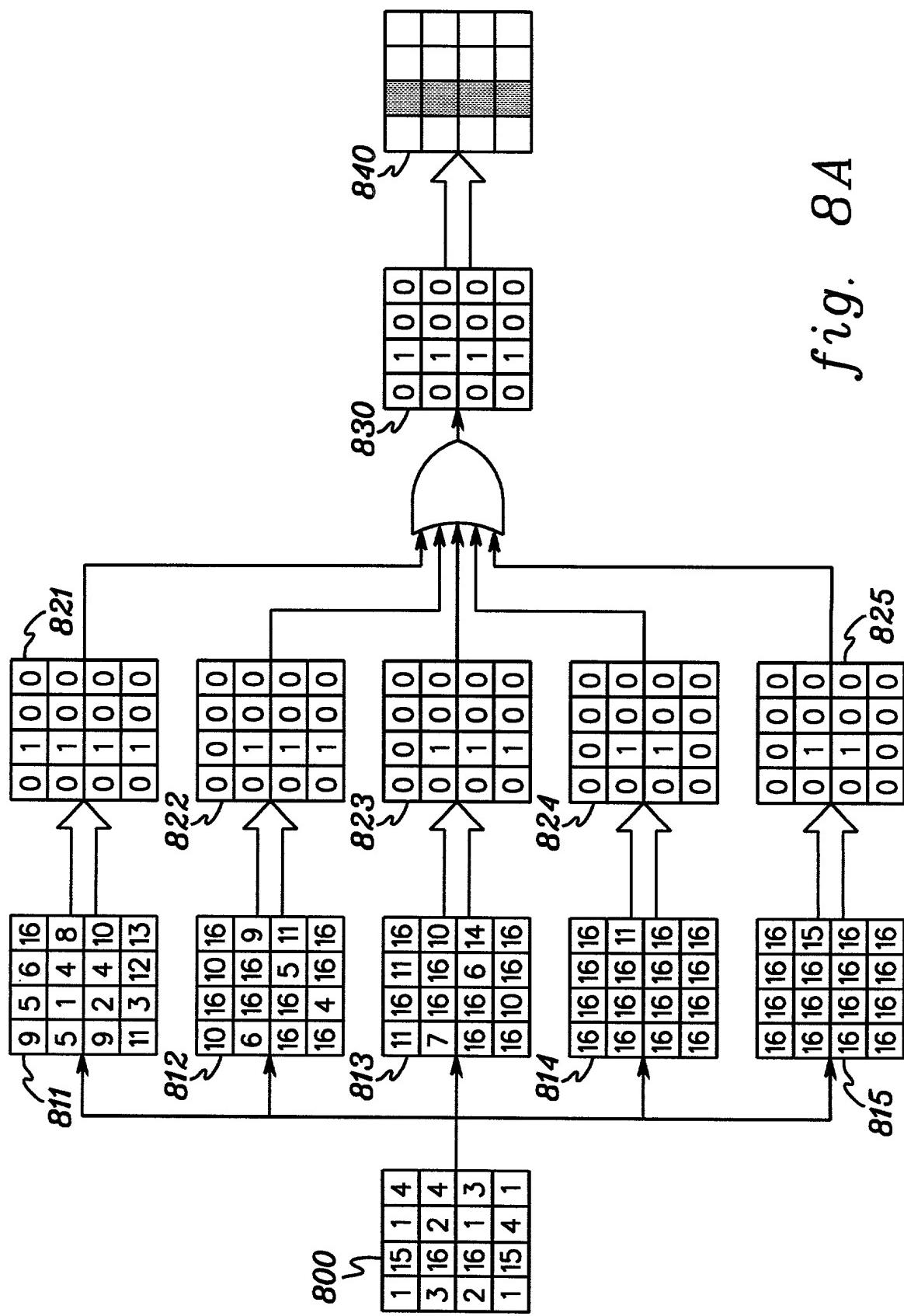
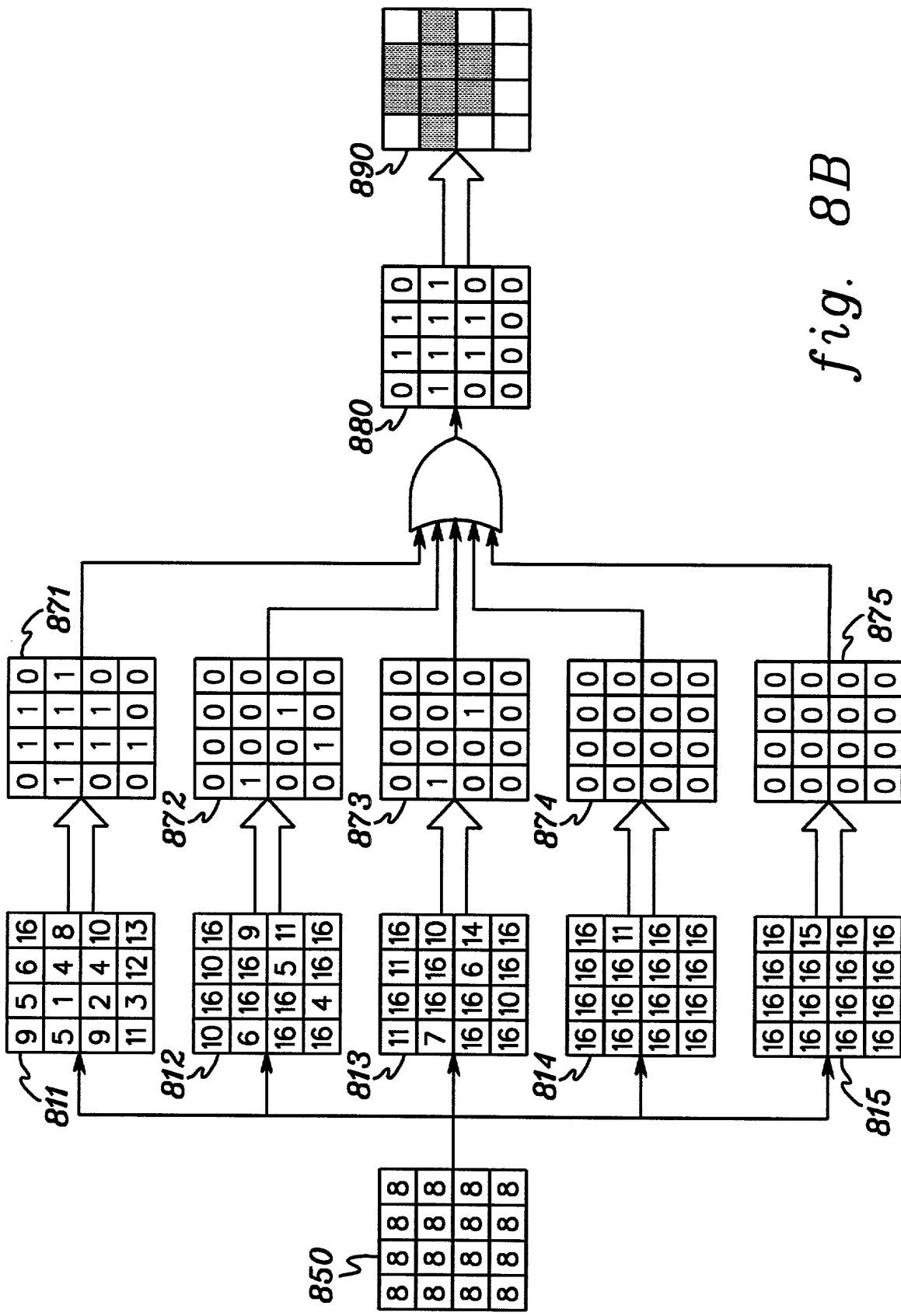


fig. 7





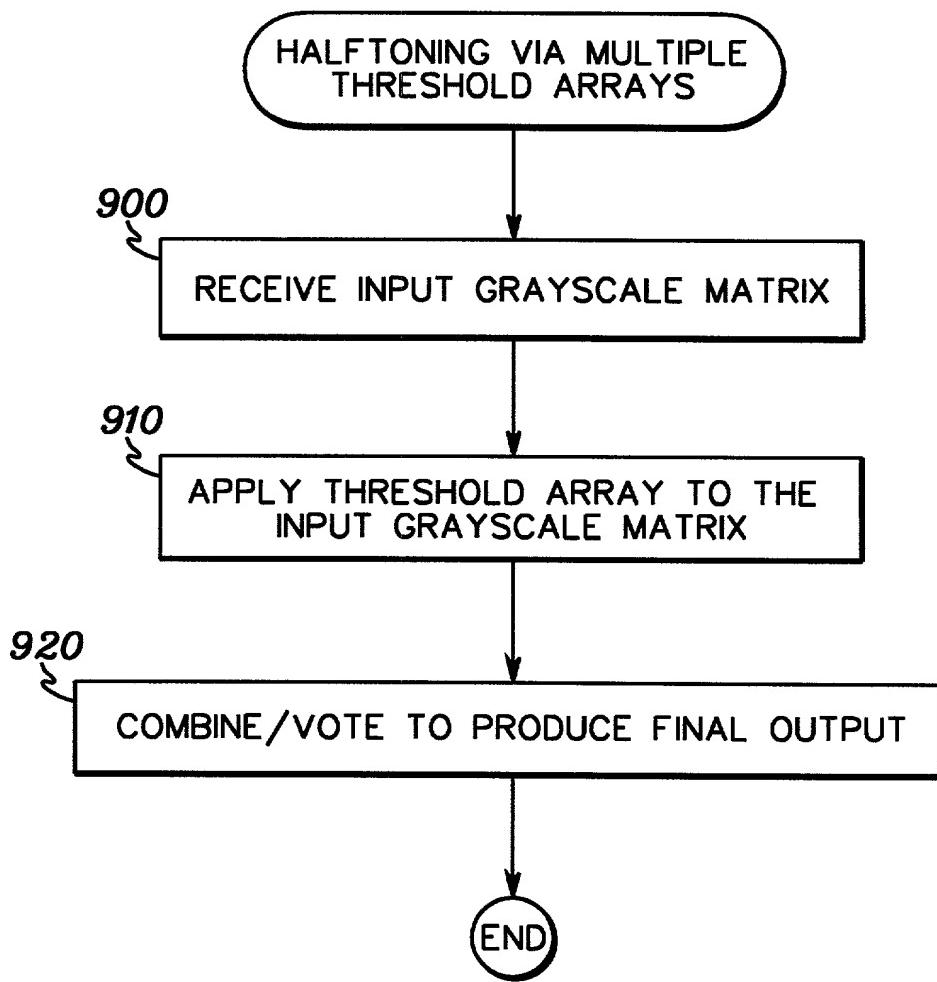


fig. 9

| INPUT LEVEL | ROW 1 BIT VECTOR | ROW 2 BIT VECTOR | ROW 3 BIT VECTOR | ROW 4 BIT VECTOR |
|-------------|---------------------|---------------------|---------------------|---------------------|
| 0 | 0000 | 0000 | 0000 | 0000 |
| 1 | 0000 | 0100 | 0000 | 0000 |
| 2 | 0000 | 0100 | 0100 | 0000 |
| 3 | 0000 | 0100 | 0100 | 0100 |
| 4 | 0000 | 0110 | 0110 | 0000 |
| 5 | 0100 | 1110 | 0100 | 0000 |
| 6 | 0110 | 0110 | 0110 | 0000 |
| 7 | 0110 | 1110 | 0110 | 0000 |
| 8 | 0110 | 1111 | 0110 | 0000 |
| 9 | 1110 | 1110 | 1110 | 0000 |
| 10 | 0100 | 1111 | 1111 | 0100 |
| 11 | 1110 | 1110 | 1110 | 1100 |
| 12 | 1110 | 1110 | 1110 | 1110 |
| 13 | 1110 | 1110 | 1110 | 1111 |
| 14 | 1110 | 1110 | 1111 | 1111 |
| 15 | 1110 | 1111 | 1111 | 1111 |
| 16 | 1111 | 1111 | 1111 | 1111 |

fig. 10A

| INPUT LEVEL | ROW1.ROW1 | ROW2.ROW2 | ROW3.ROW3 | ROW4.ROW4 |
|-------------|------------|------------|------------|------------|
| 0 | 0000. 0000 | 0000. 0000 | 0000. 0000 | 0000. 0000 |
| 1 | 0000. 0000 | 0100. 0100 | 0000. 0000 | 0000. 0000 |
| 2 | 0000. 0000 | 0100. 0100 | 0100. 0100 | 0000. 0000 |
| 3 | 0000. 0000 | 0100. 0100 | 0100. 0100 | 0100. 0100 |
| 4 | 0000. 0000 | 0110. 0110 | 0110. 0110 | 0000. 0000 |
| 5 | 0100. 0100 | 1110. 1110 | 0100. 0100 | 0000. 0000 |
| 6 | 0110. 0110 | 0110. 0110 | 0110. 0110 | 0000. 0000 |
| 7 | 0110. 0110 | 1110. 1110 | 0110. 0110 | 0000. 0000 |
| 8 | 0110. 0110 | 1111. 1111 | 0110. 0110 | 0000. 0000 |
| 9 | 1110. 1110 | 1110. 1110 | 1110. 1110 | 0000. 0000 |
| 10 | 0100. 0100 | 1111. 1111 | 1111. 1111 | 0100. 0100 |
| 11 | 1110. 1110 | 1110. 1110 | 1110. 1110 | 1100. 1100 |
| 12 | 1110. 1110 | 1110. 1110 | 1110. 1110 | 1110. 1110 |
| 13 | 1110. 1110 | 1110. 1110 | 1110. 1110 | 1111. 1111 |
| 14 | 1110. 1110 | 1110. 1110 | 1111. 1111 | 1111. 1111 |
| 15 | 1110. 1110 | 1111. 1111 | 1111. 1111 | 1111. 1111 |
| 16 | 1111. 1111 | 1111. 1111 | 1111. 1111 | 1111. 1111 |

fig. 10B

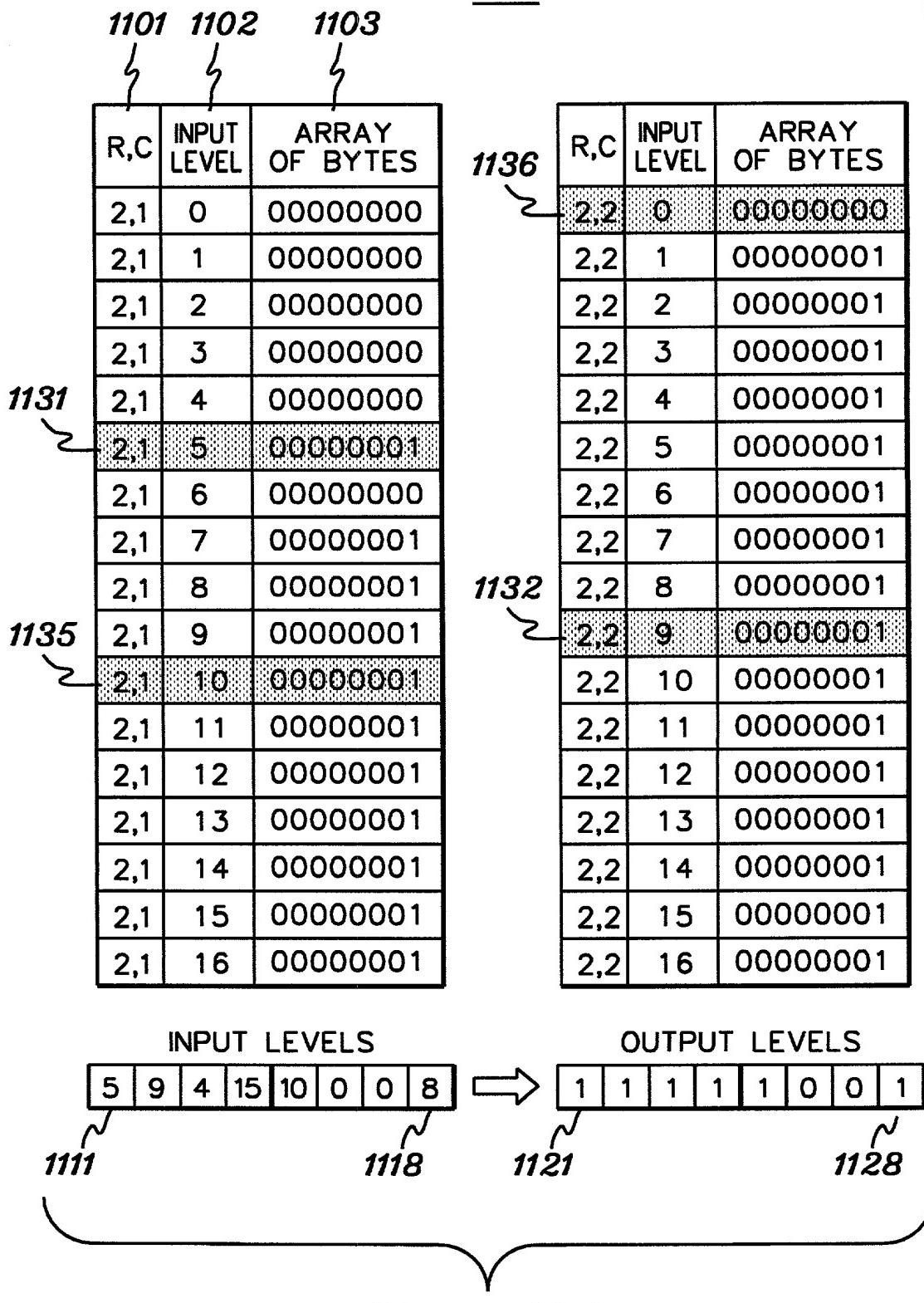


fig. 11A

1100

| R,C | INPUT LEVEL | ARRAY OF BYTES |
|-----|-------------|----------------|
| 2,3 | 0 | 00000000 |
| 2,3 | 1 | 00000000 |
| 2,3 | 2 | 00000000 |
| 2,3 | 3 | 00000000 |
| 2,3 | 4 | 00000001 |
| 2,3 | 5 | 00000001 |
| 2,3 | 6 | 00000001 |
| 2,3 | 7 | 00000001 |
| 2,3 | 8 | 00000001 |
| 2,3 | 9 | 00000001 |
| 2,3 | 10 | 00000001 |
| 2,3 | 11 | 00000001 |
| 2,3 | 12 | 00000001 |
| 2,3 | 13 | 00000001 |
| 2,3 | 14 | 00000001 |
| 2,3 | 15 | 00000001 |
| 2,3 | 16 | 00000001 |

| R,C | INPUT LEVEL | ARRAY OF BYTES |
|-----|-------------|----------------|
| 2,4 | 0 | 00000000 |
| 2,4 | 1 | 00000000 |
| 2,4 | 2 | 00000000 |
| 2,4 | 3 | 00000000 |
| 2,4 | 4 | 00000000 |
| 2,4 | 5 | 00000000 |
| 2,4 | 6 | 00000000 |
| 2,4 | 7 | 00000000 |
| 2,4 | 8 | 00000001 |
| 2,4 | 9 | 00000000 |
| 2,4 | 10 | 00000001 |
| 2,4 | 11 | 00000000 |
| 2,4 | 12 | 00000000 |
| 2,4 | 13 | 00000000 |
| 2,4 | 14 | 00000000 |
| 2,4 | 15 | 00000001 |
| 2,4 | 16 | 00000001 |

fig. 11B

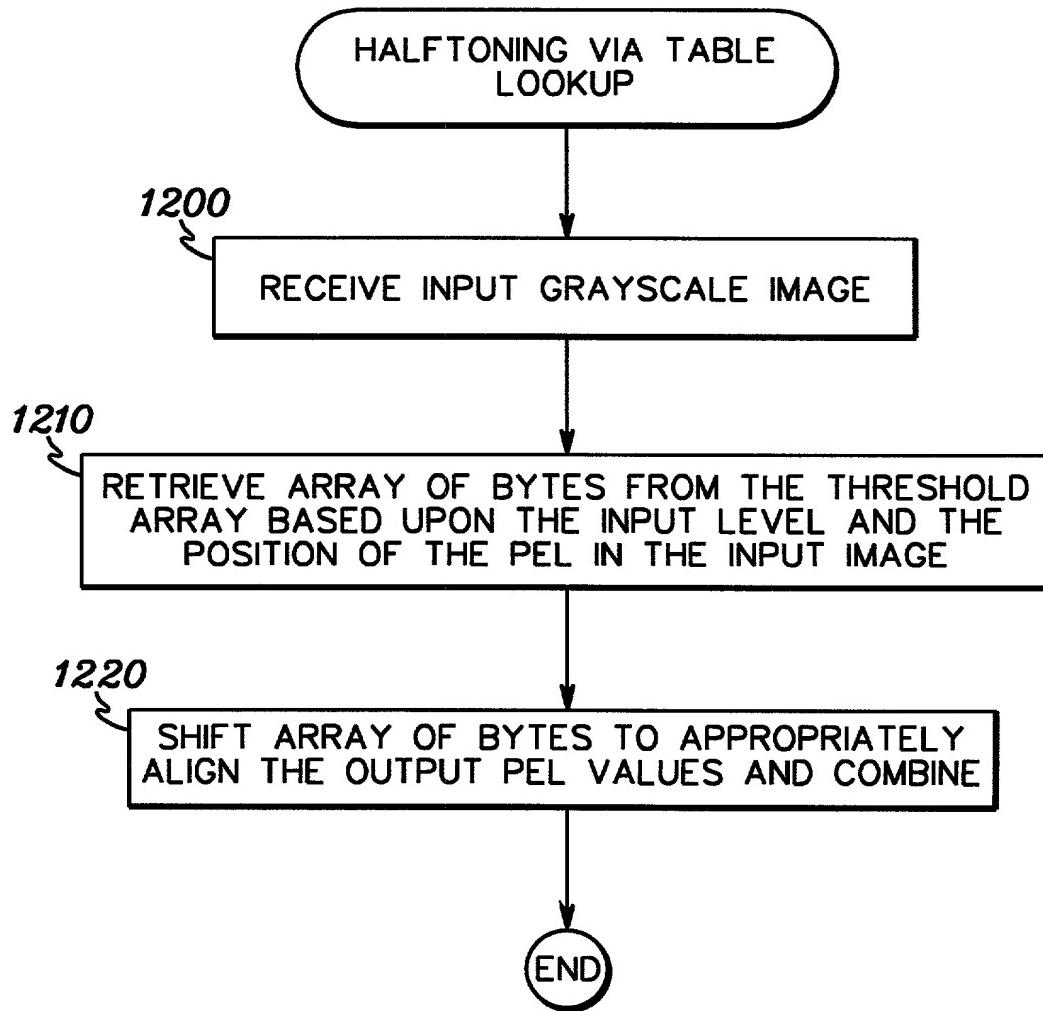
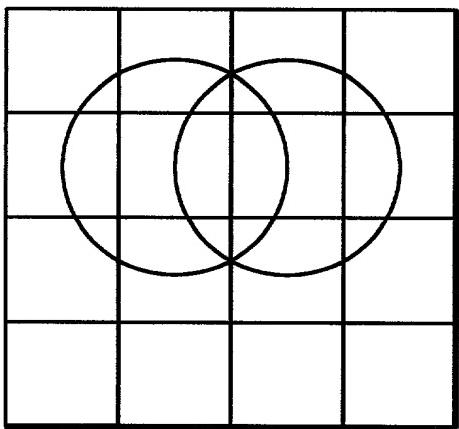
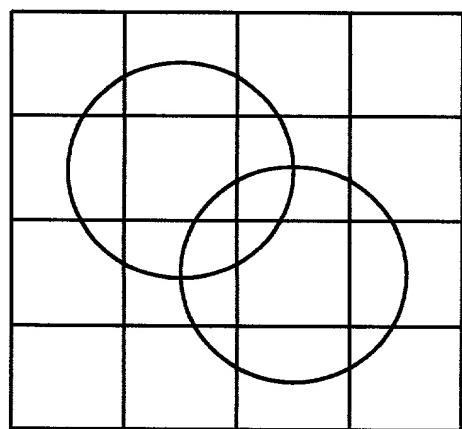


fig. 12



ADJACENT PELS



DIAGONAL PELS

fig. 13

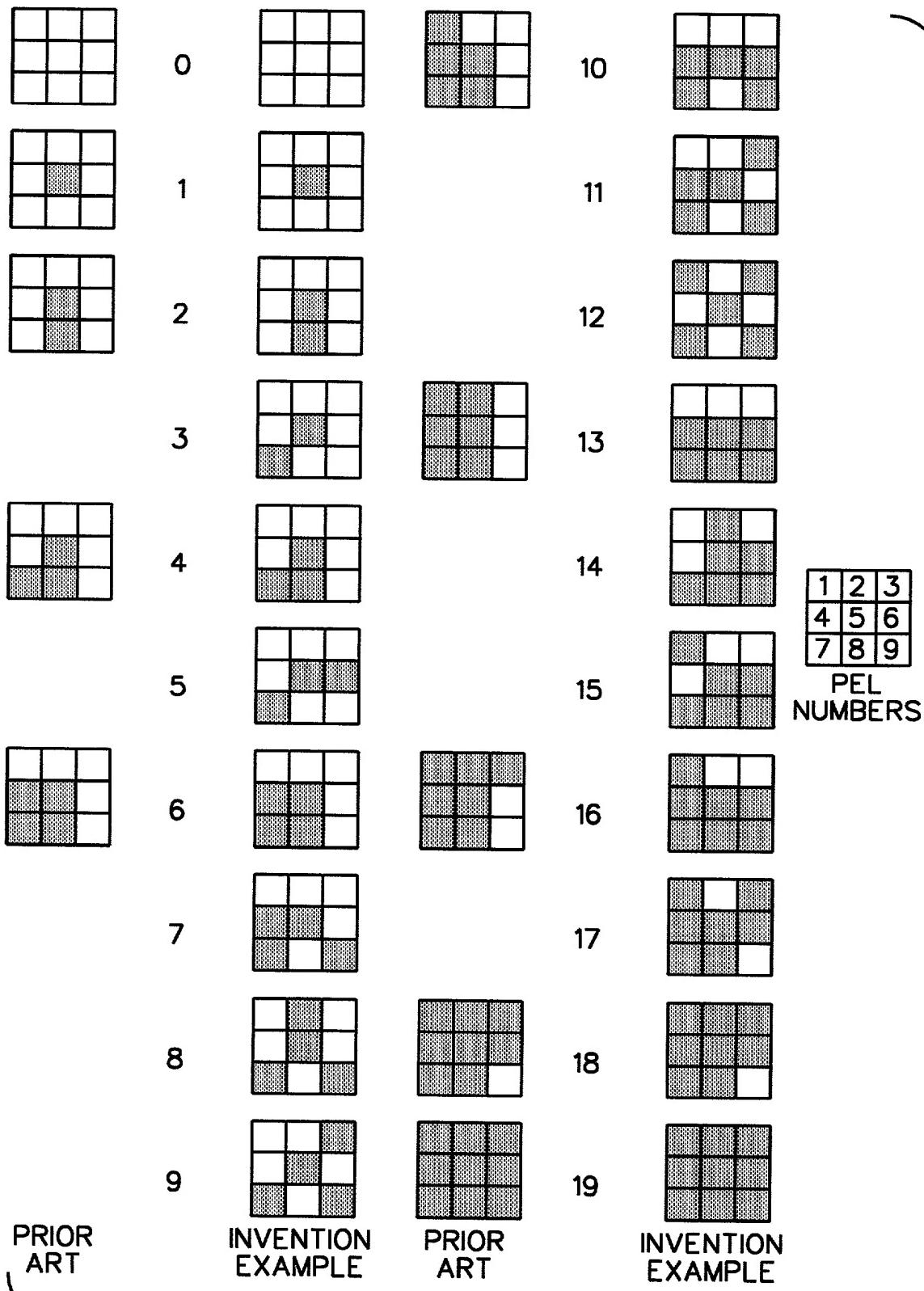


fig. 14

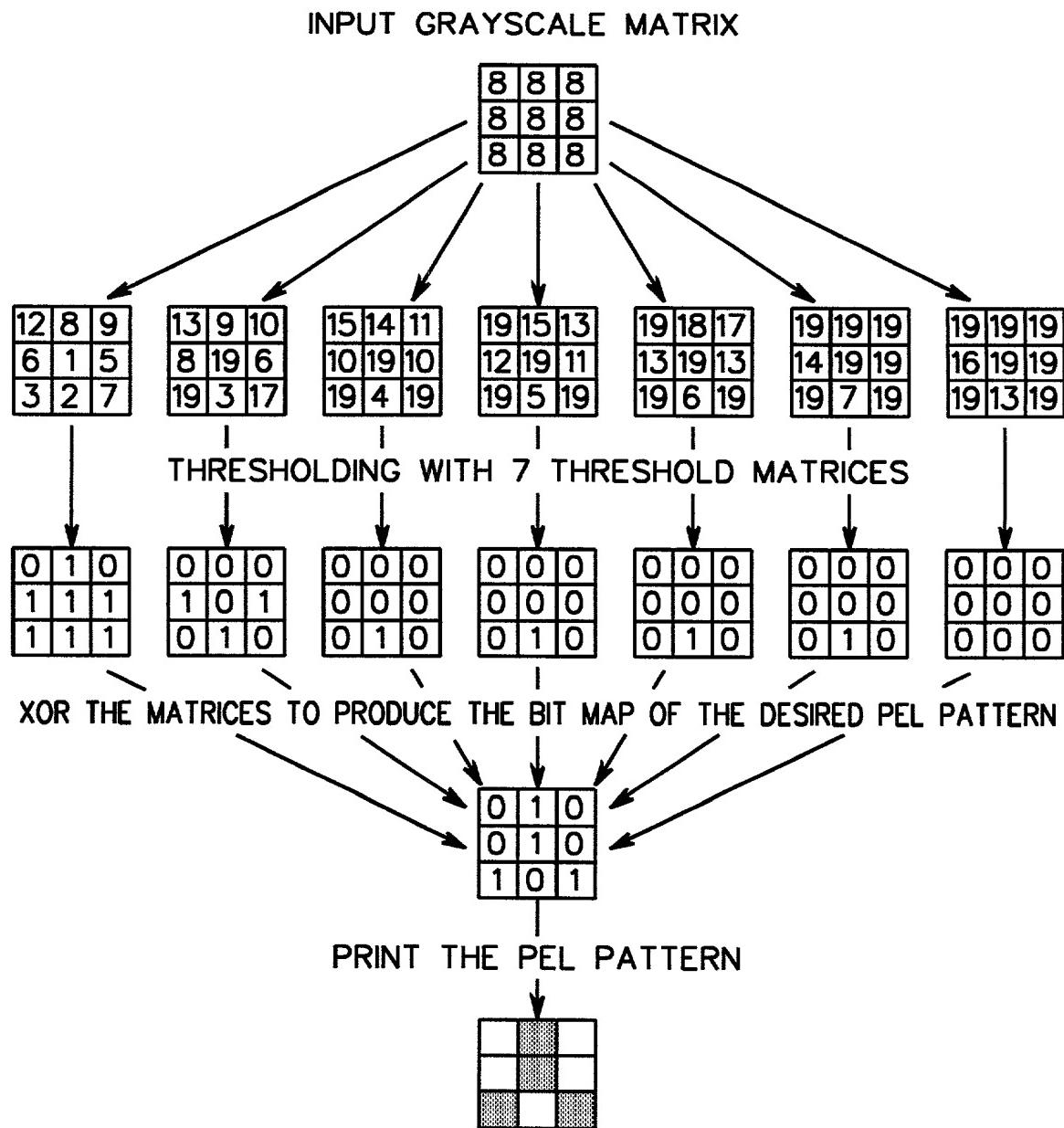


fig. 15